

REMARKS

Each of independent Claims 18 and 19 require that the acrylic fiber is made by using a spinneret having certain dimensional characteristics. The prior art relied upon by the Office does not disclose or suggest the use of a spinneret such as that recited in the present claims. Therefore, the prior art relied upon by the Office cannot render the presently claimed subject matter obvious.

The use of the spinnerets recited in present Claims 18 and 19 permits the formation of fibers having particular structures. For example, the original specification discloses on page 25, line 8-19 (underlining added for emphasis):

For forming a fiber with flat arms radially branched from the center of a monofilament (typically, an essentially Y-shaped or cross-shaped structure), it is preferable that a spinneret capillary in a spinneret has such a shape. For example, it is preferably to use a spinneret with a spinneret capillary where a ratio A/B is 2.0 to 10.0 wherein "A" and "B" are the length of each radially branched opening arm from its center and the width of the branched opening arm, respectively.

When forming a flat fiber with a large ratio of long/short axes (flatness) in the fiber cross-section, it is preferable to use a spinneret with a spinneret capillary in which a long/short axis ratio (flatness) is 5.0 to 15.0.

The Office asserts that the subject matter of Claims 18 and 19 is obvious in view of Fujimatsu (U.S. 4,205,037) in combination with Lieseberg (U.S. 2,957,748). Applicants submit that subject matter of Claims 18 and 19 is not obvious over Fujimatsu and Lieseberg at least because the prior art relied upon by the Office does not disclose or suggest forming an acrylic fiber using the spinneret recited in the present claims. As noted above the use of spinnerets having the dimensional characteristics recited in the claims may provide a fiber having a particular shape of structural characteristics. In contrast, Lieseberg discloses that the prior art fibers have the following shape:

The fibers thus prepared have a circular or almost circular cross-section as an obvious feature of difference from

all hitherto known commercial types of fiber from pure polyacrylonitrile or acrylonitrile copolymers.

See column 2, lines 59-63 of Lieseberg.

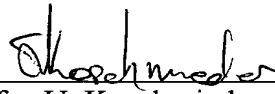
The prior art relied upon by the Office cannot render the presently claimed invention obvious because (1) Fujimatsu and Lieseberg do not disclose all the present claim limitations, and (2) those of ordinary skill in the art would have no motivation to produce an acrylic fiber using the spinnerets of Claims 18 and 19 in view of Lieseberg's formation of a circular fiber.

The Office further rejected the claims under obviousness-type double patenting in view of Kasabo (U.S. 6,641,915) and Ikeda (U.S. 6,503,624). None of the claims of Kasabo or Ikeda recite a spinning step that uses a spinneret having the dimensional characteristics of the spinnerets recited in the present claims. Obviousness-type double patenting is determined by comparing the claims of the application to the claims of the patent. When the claims of the present application are compared against the claims of Kasabo and Ikeda it is clear that not all of the limitations of the present claims appear in the claims of Kasabo and Ikeda. Thus, the obviousness-type double patenting rejection is not supportable and should be withdrawn.

For the reasons discussed above in detail, Applicant submit that all now-pending claims are in condition for allowance. Applicants request withdrawal of the rejection and the mailing of a Notice of Allowance acknowledging the patentability of the presently claimed subject matter.

Respectfully submitted,

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